

36

40

22

24

28

20

32

BUBBLERS

34

REACTIVE GAS

30

MASS-FLOW CONTROLLERS

FIG. 2A

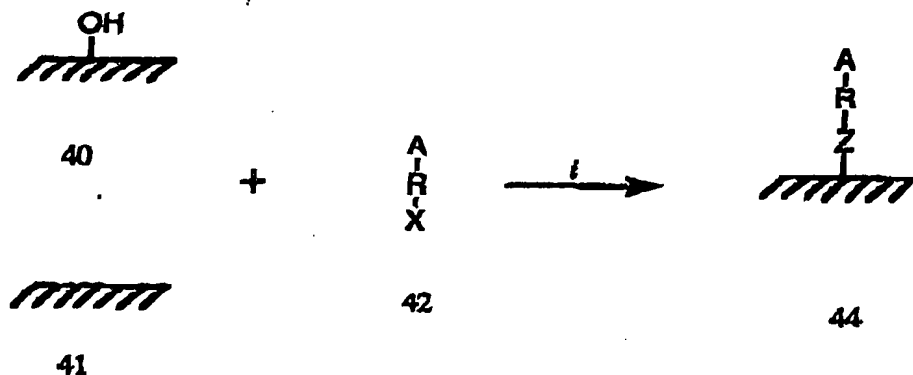


FIG. 2A

Substrate	Coupling Agent (X = silane or thiol)	Template Layer (Z = siloxane or metal-sulfide)
 $\text{MO}_x$ $\text{M} = \text{Si, Ti, In, Fe, ...}$ 40	 42	 44
 $\text{M or MM'}$ $\text{M} = \text{Au, Pt, Cu, ...}$ $\text{MM'} = \text{GaAs, CdSe, ...}$ 41	 42	 44

FIG. 2B

FIG. 2A

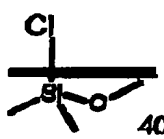
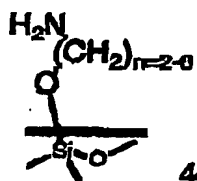
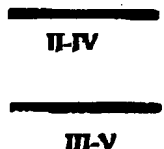
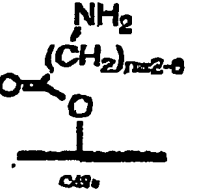
Substrate	Coupling Agent (X = OH, CO <sub>2</sub> H, PO <sub>3</sub> H <sub>2</sub> )	Template Layer (Z = alkoxysilane, phosphate, or carboxylic acid)
 40	$\text{HO-R-NH}_2$ 42 R = alkyl or phenyl	 44
 41	$\text{HOOC-R-NH}_2$ $(\text{HO})_2\text{OP-R-NH}_2$ 42 R = alkyl or phenyl	 44

FIG.2B cont'd

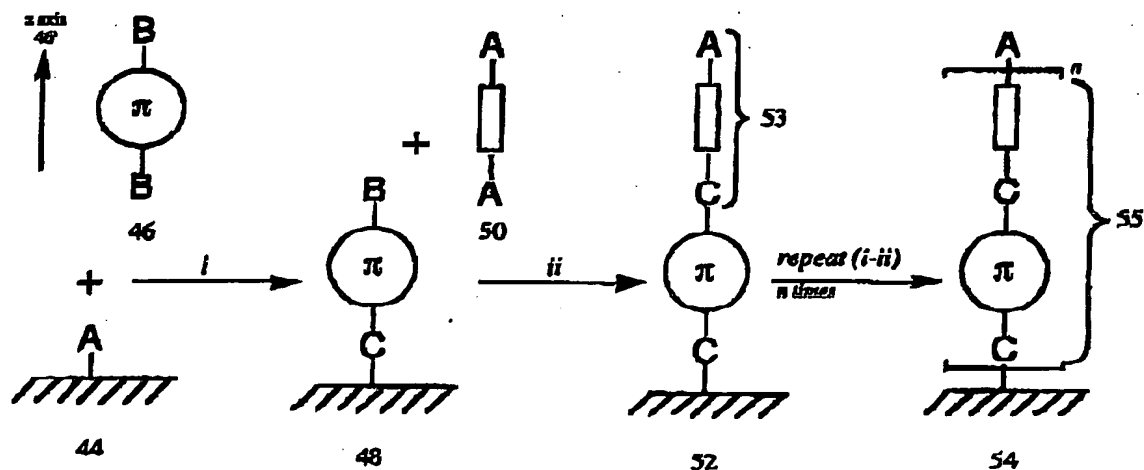


FIG.3A

A	B	C	Ins./SC	Cond./SC	
$\text{-NH}_2$					Ins./Cond.
$\text{R-NH}_2$ $\text{R-NH}_2$			$\text{-(CH}_2\text{)}_n\text{-}$ $n=1-12$	$\text{-(S)}_n\text{-}$ $n=1-6$ oligothiophene	
$\text{-NH}_2$					SC/SC
$\text{-SiCl}_3$	$\text{-OH}$		$\text{B-(}\pi\text{)-B}$	$\text{A-(}\pi\text{)-A}$	
	$\text{-OH}$		naphthalene perylene terylene anthracene pentacene	porphyrine phthalocyanine	

FIG. 3B

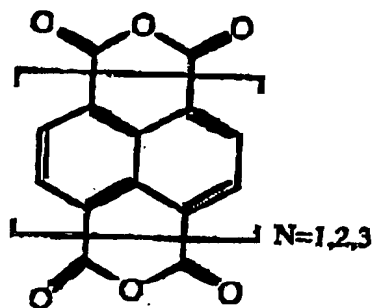


FIG. 4A

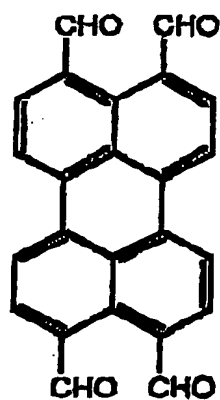


FIG.4B

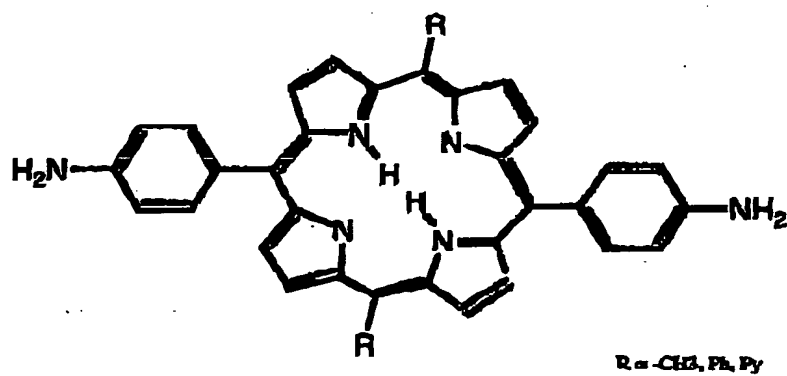


FIG.4C

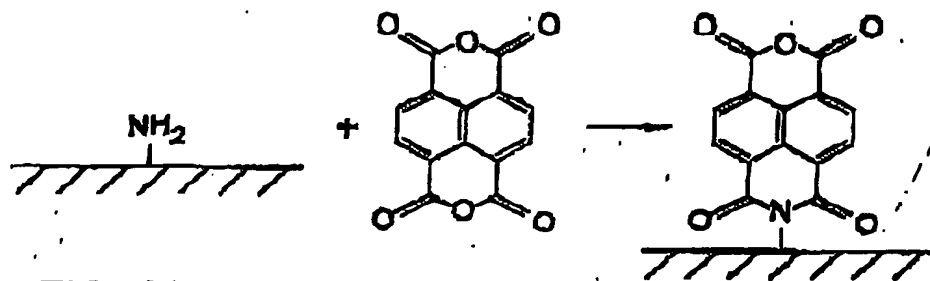


FIG. 5A

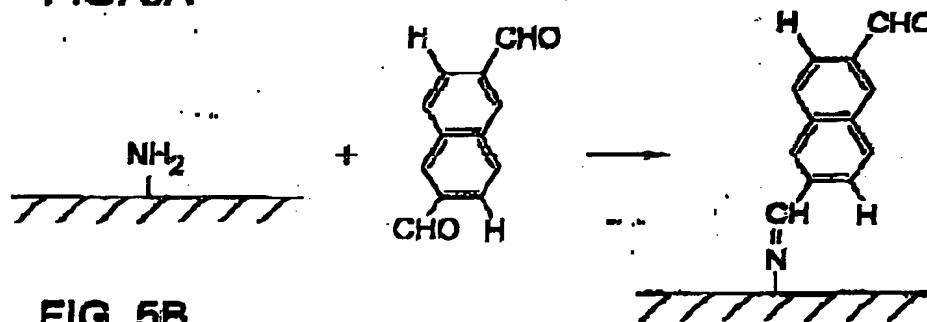


FIG. 5B

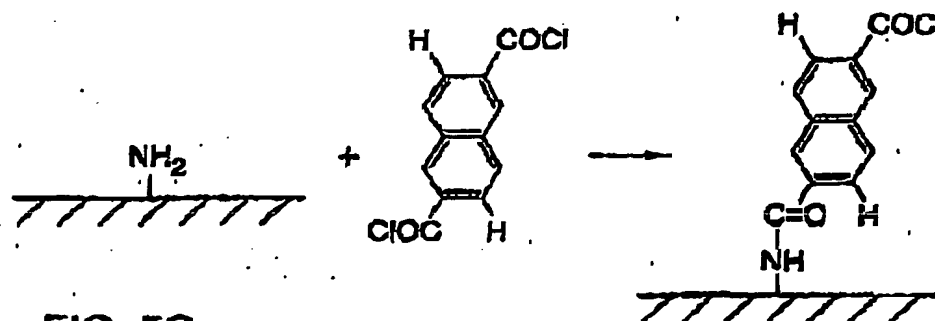


FIG. 5C

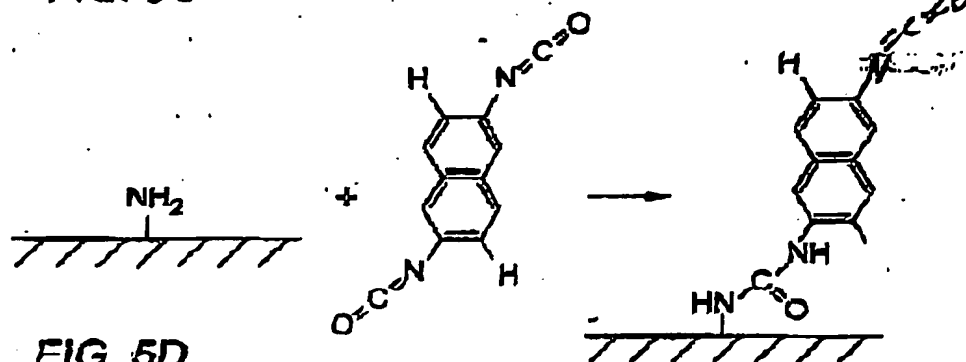
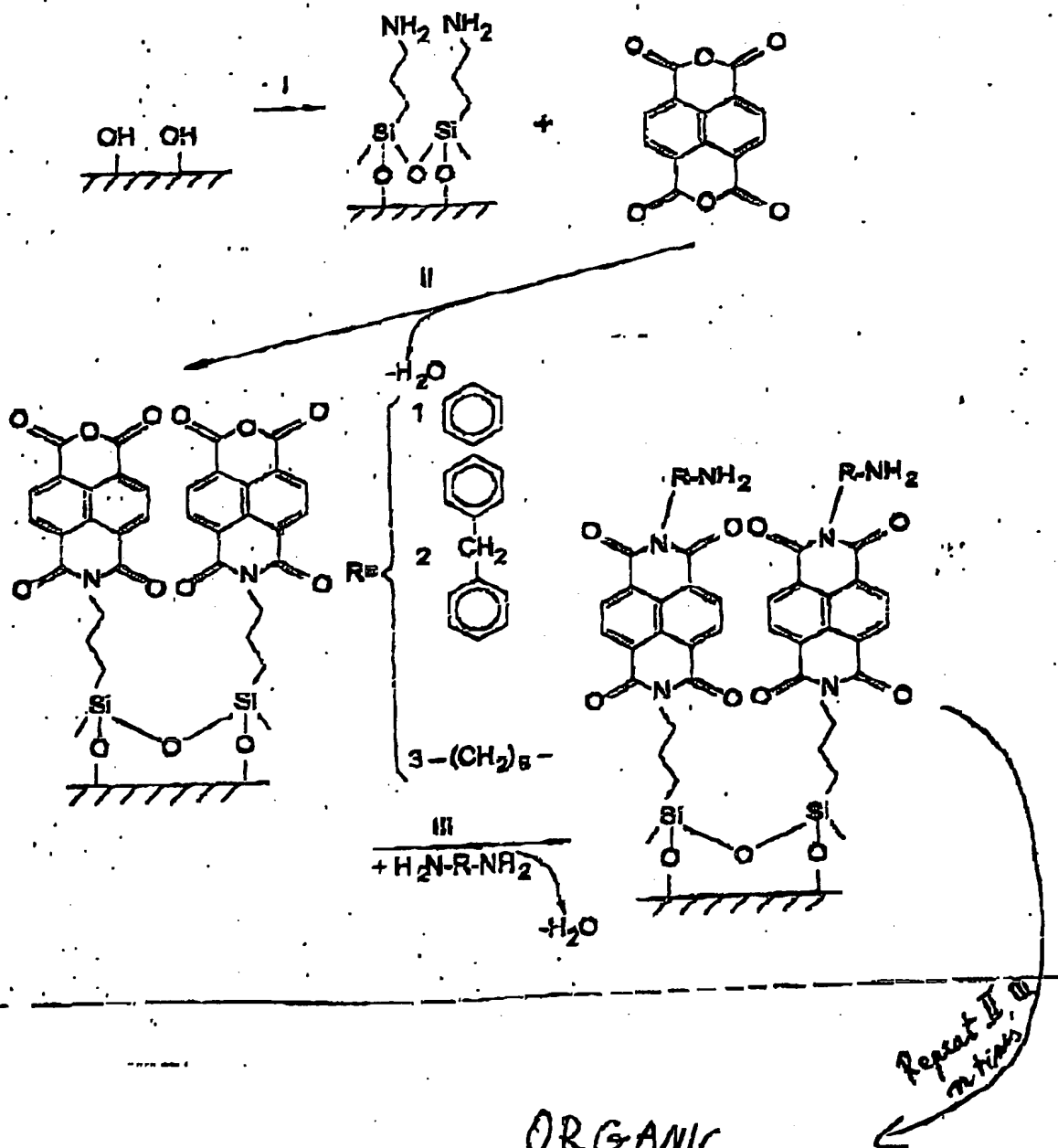


FIG. 5D

0965745-100301



ORGANIC  
SUPERLATTICE

Fig. 6

096544-10101

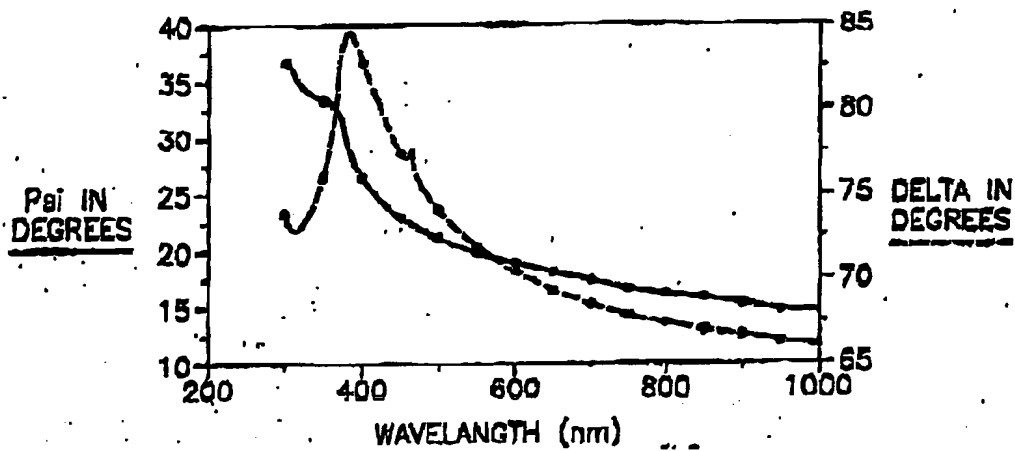


FIG.7

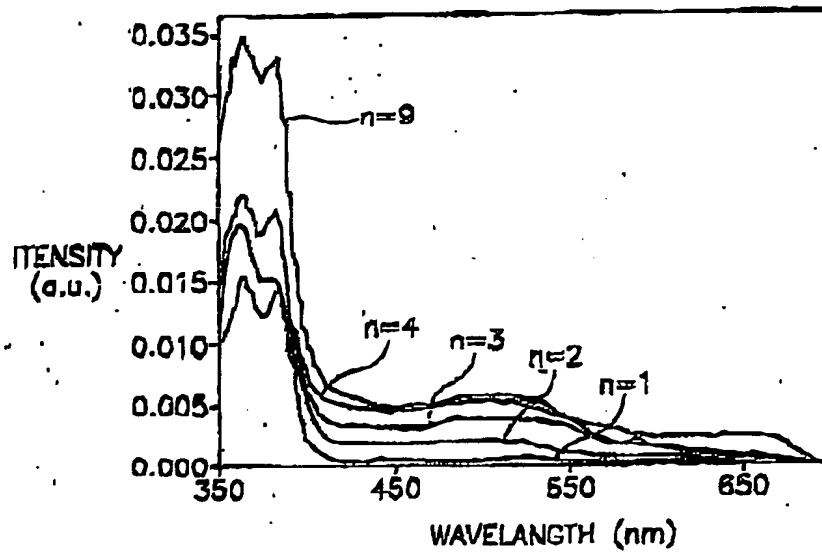
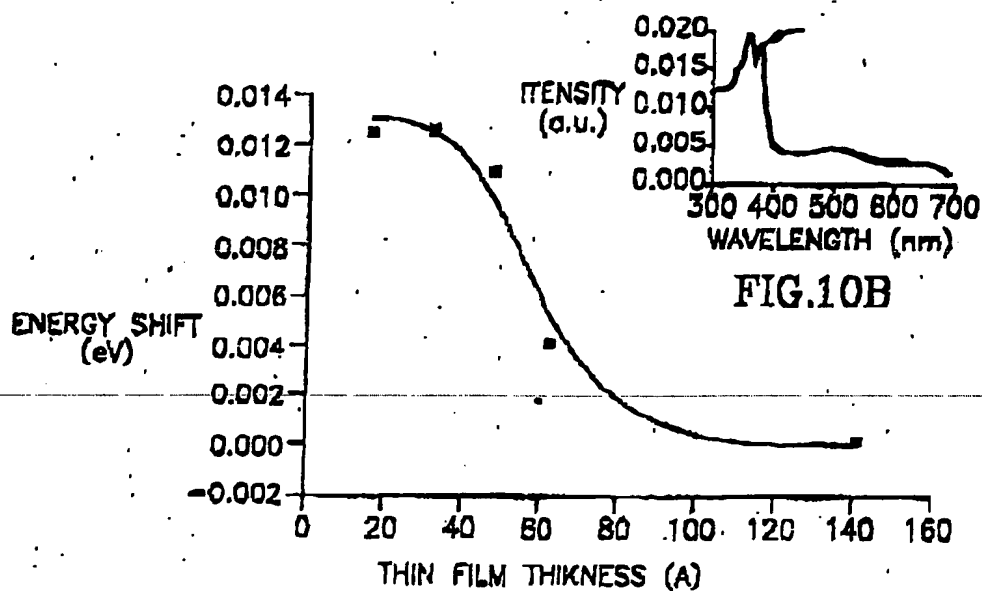
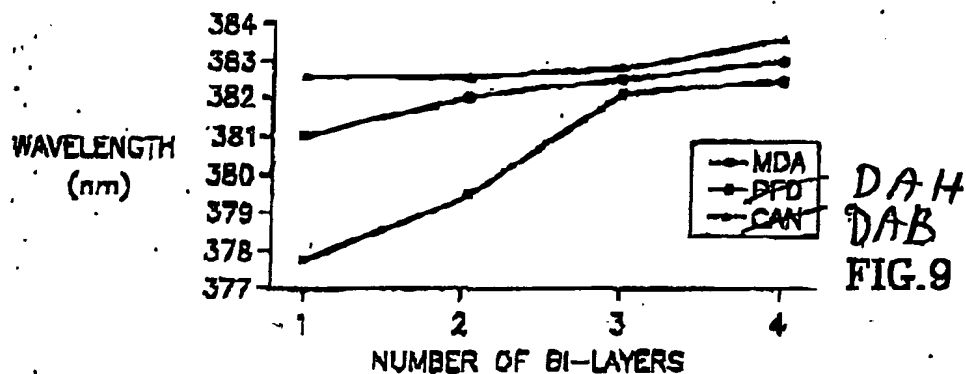


FIG.8



09066745 100101



0966745-100101

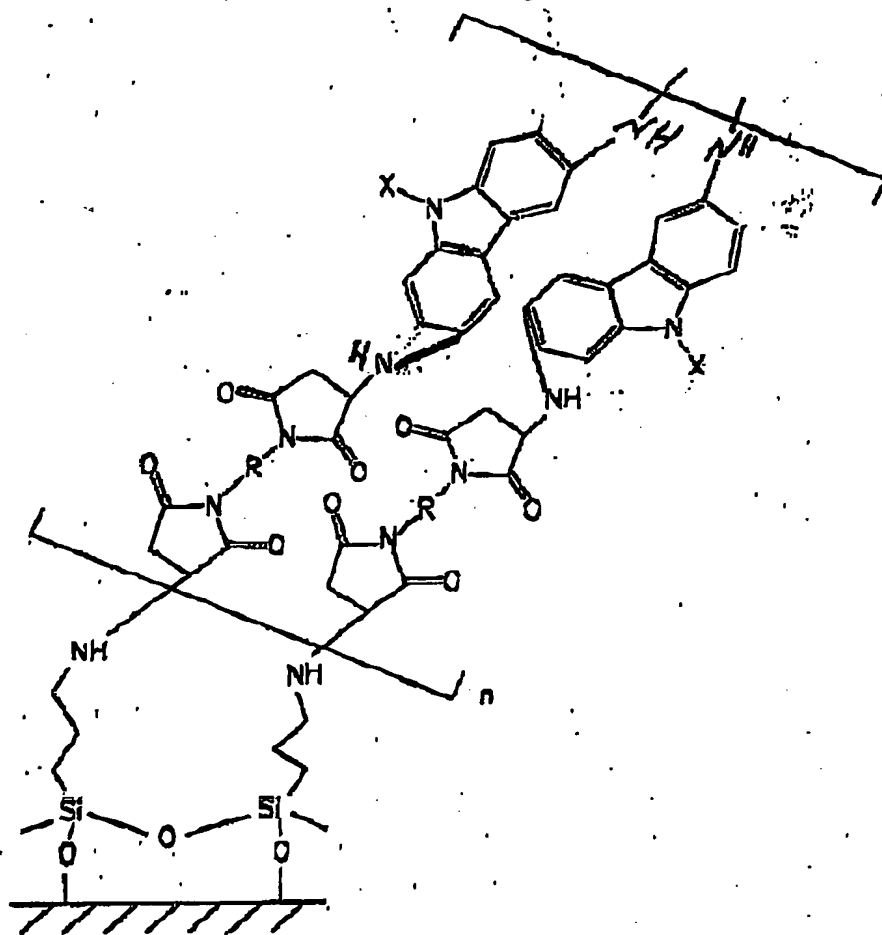


FIG. 11

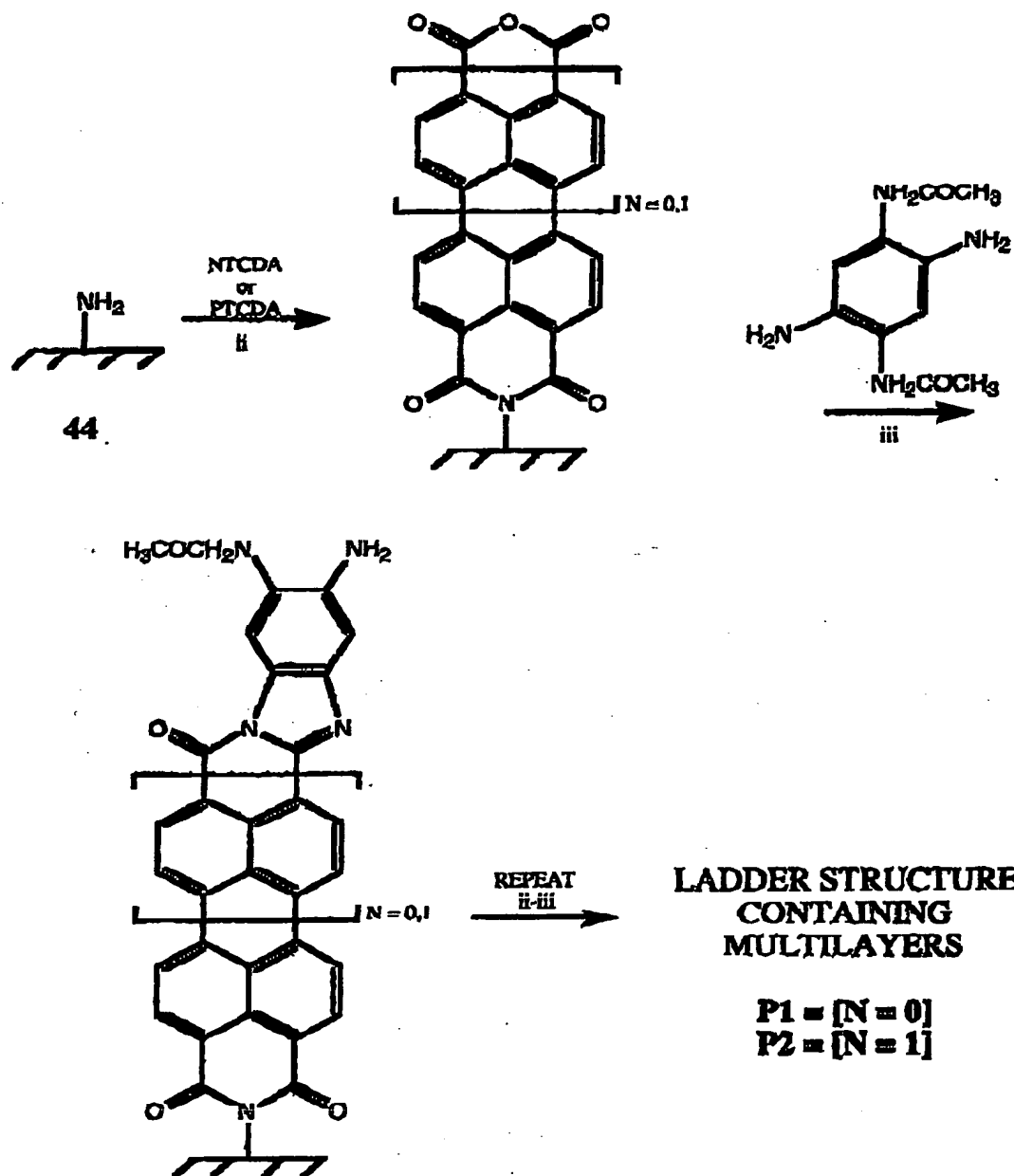


FIG.12A

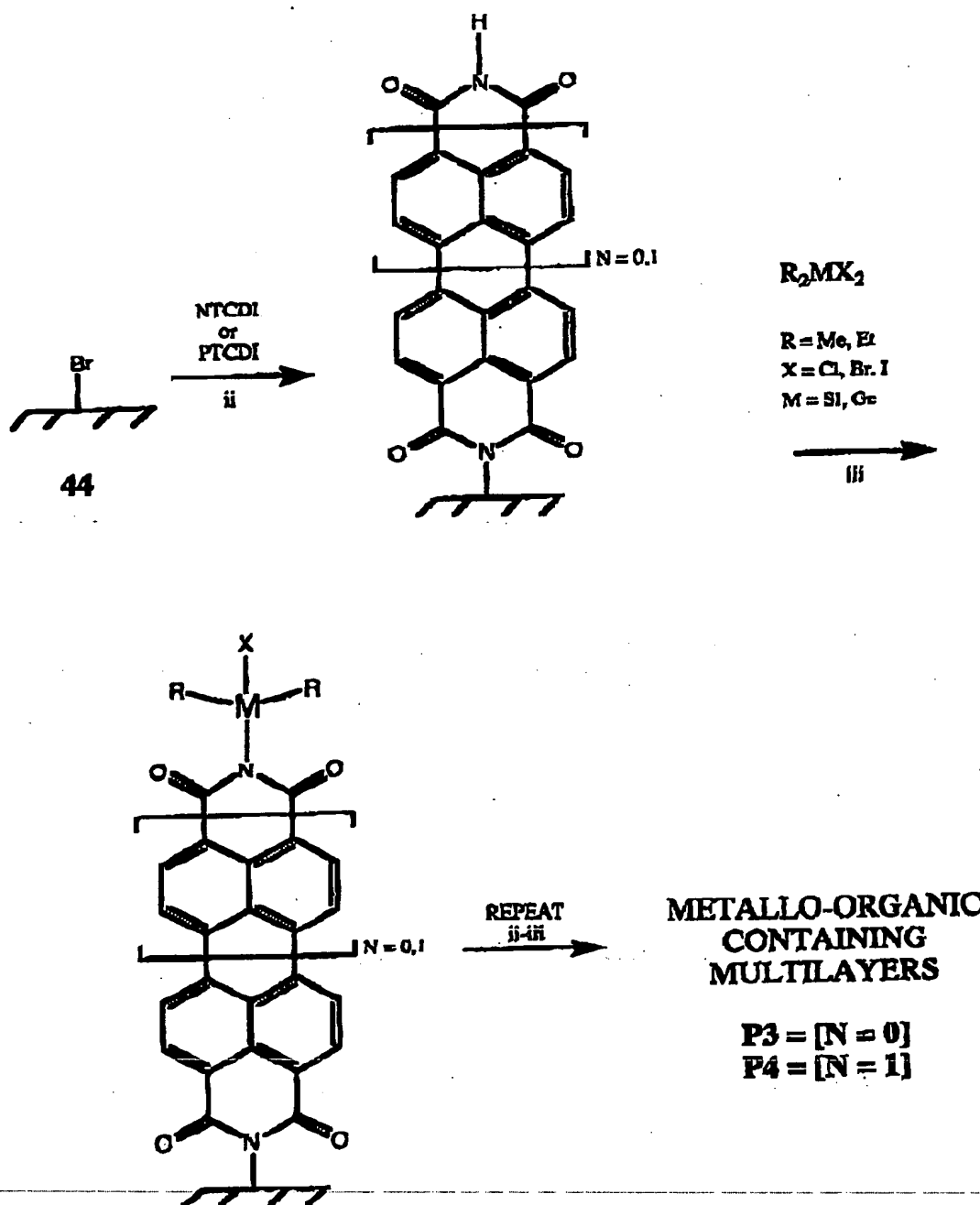


FIG.12B

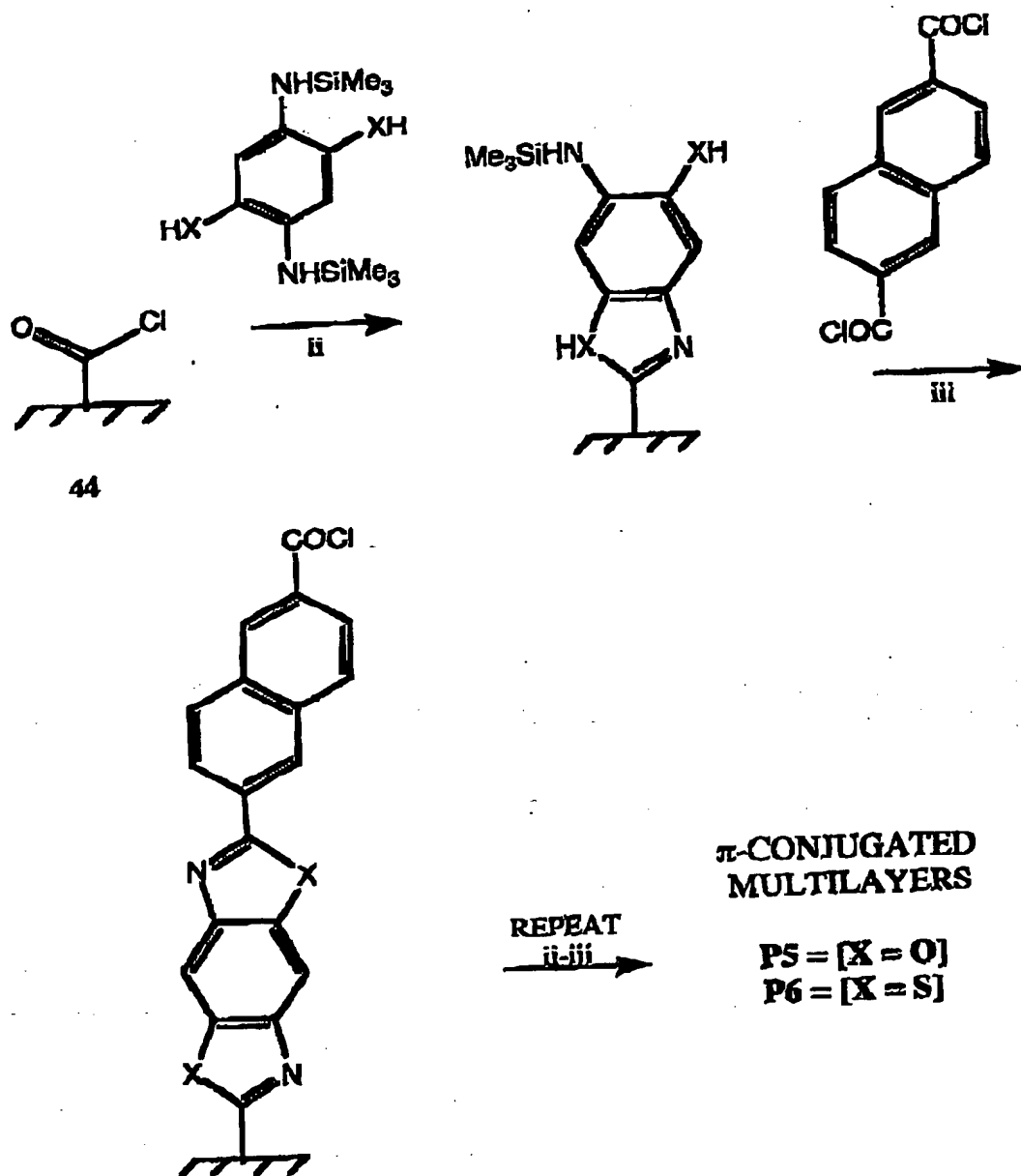


FIG.12C

09066745 100101

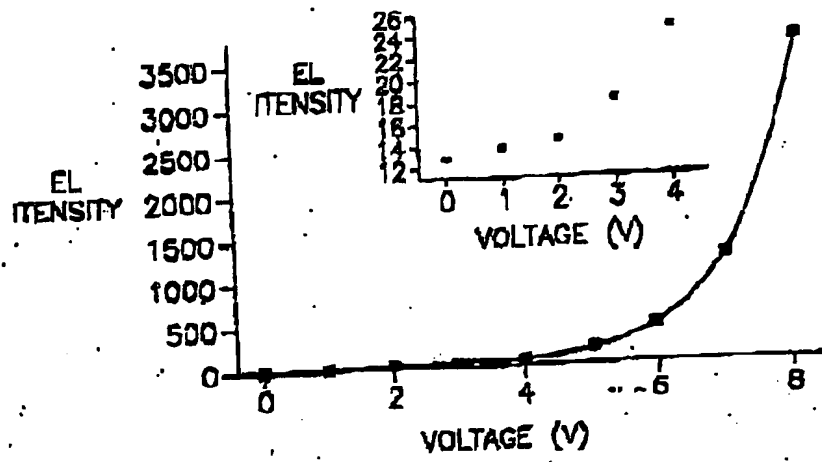


FIG. 13A

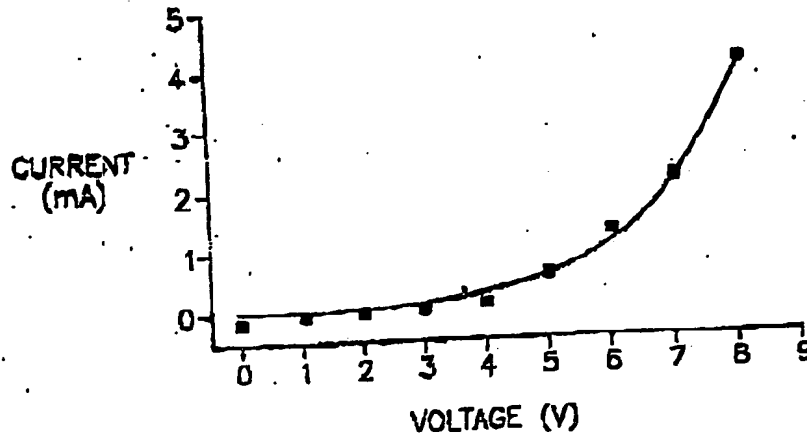


FIG. 13B

0966745 100101

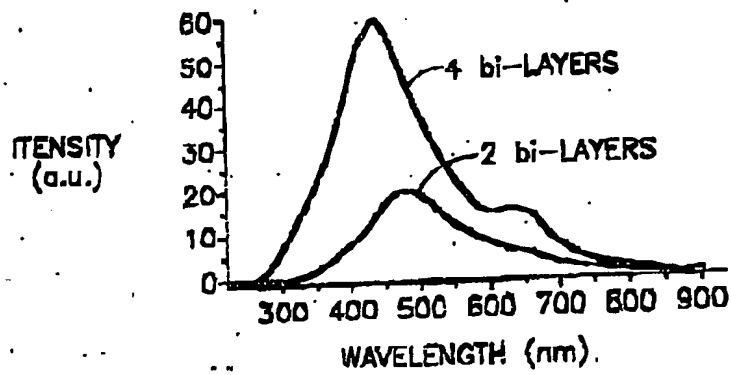


FIG.14

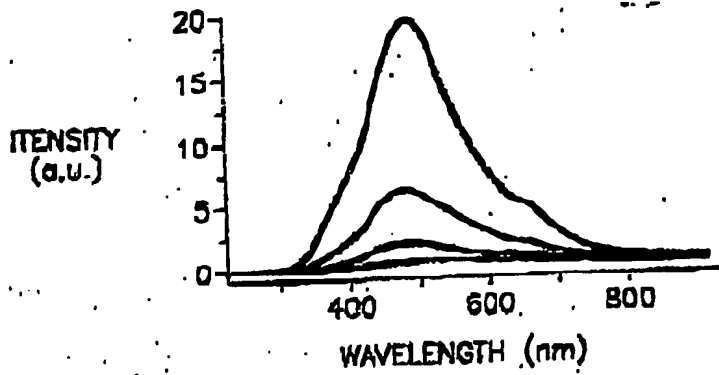


FIG.15

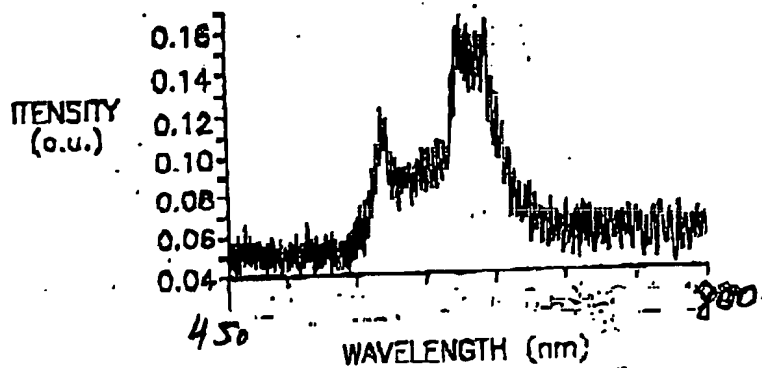


FIG.16

09965745-100101

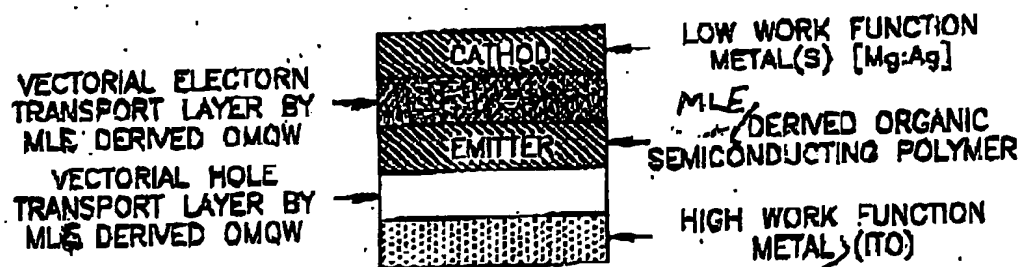


FIG.17A

*or semiconductor*

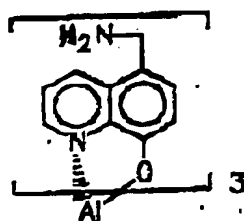
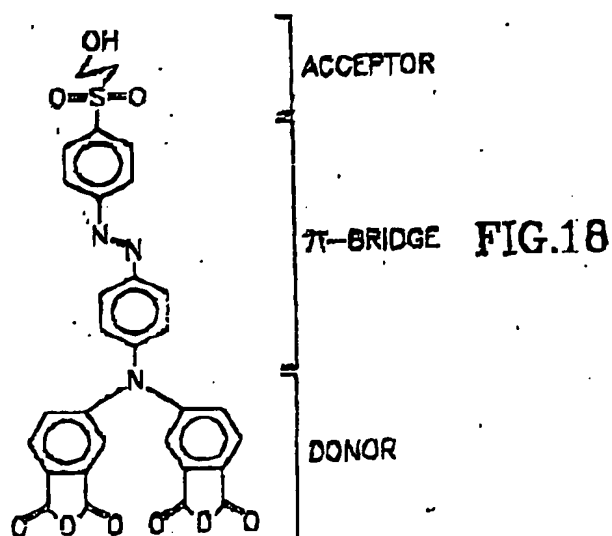
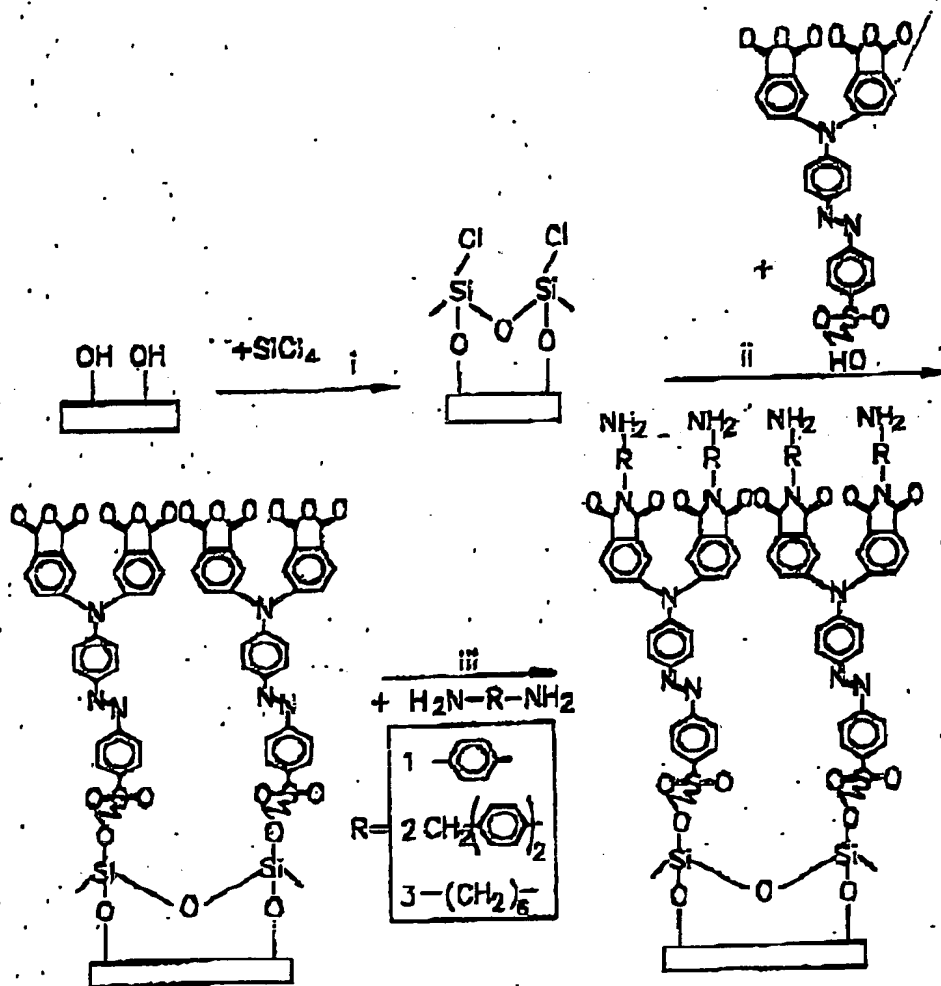


FIG.17B







ii, iii  
REPEAT

ORGANIC SUPERLATTICE

FIG.19